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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/727,390 | 12/03/2003 | Richard S. Zhang | RD-29,472 | 7554 |
| 6147 | 7590 | 08/24/2004 | EXAMINER | |
| GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309 | | | PATEL, RAJNIKANT B | |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 2838 |

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/727,390 | ZHANG ET AL. |
| Examiner | Art Unit | |
| Rajnikant B Patel | 2838 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 December 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 32-57 is/are pending in the application.
 - 4a) Of the above claim(s) 32-42 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 43-57 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 12/3/03.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Specification needs to revise to include "This application is a Divisional of U.S. application Ser. No. 10/064,547, filed July 25, 2002 now U.S. Pat. No. 6,751,106 B2, which is incorporated herein by reference".

Appropriate correction is required.

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 32-42, drawn to power converter (class 363/40).

Group II, claim(s) 43-57, drawn to integrated magnetic choke (class 336/160).

2. Inventions Group I and Group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for

patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the magnetic choke is a used in apparatus. The subcombination has separate utility such as transformer and inductor coil.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with MS. Ann M. Agosti on 8/20/04 a provisional election was made Group I traverse to prosecute the invention of Group II, claims 43-57. Affirmation of this election must be made by applicant in replying to this Office action. Claims 32-42 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 43- 48 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Hu et al. (U.S. patent # 6,642,672).

Hu et al. disclose the claimed invention an integral choke assembly (figures 1A-B to 12A-B), including a common mode core wound and differential mode core wound (Abstract line 1-5), a magnetic flux path (column 4, line 45-48), a closed rectangular core (column 4, line 30-33), an E core wound (column 3, line 30-40).

3. Claims 55-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Shusterman et al. (U.S. patent # 5,321,373).

Shusterman et al. disclose the claimed subject matters (figures 3-14), including a U core wound (Abstract line 1-5),

Claim Rejections - 35 USC § 103

4. Claims 48 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu et al. (U.S. Patent # 6,642,672 B2) in combination with Shusterman et al. (U.S. Patent # 5,321,373) and Lipo et al. (U.S. Patent # 5,646,498).

Hu et al. disclose the claimed invention as explained in the claims 43-48 and 50, above, except the utilization of the technique for a U wound core and three phase configuration. Shusterman et al. teaches the utilization of the similar technique for a U wound core and Lipo et al. teaches the utilization of the technique for three-phase configuration. It would

have been obvious one having an ordinary skill in the art at the time invention was made to modify Hu et al.'s integrated filter by utilizing the technique taught by Shusterman et al. and Lipo et al. for the purpose of improving suppression of electromagnetic interference.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rajnikant B Patel whose telephone number is 571-272-2082. The examiner can normally be reached on 6.30-5.00; m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-282-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rajnikant B Patel
Primary Examiner
Art Unit 2838
